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Determining the Pass Score for the Registered Environmental Health Specialist Examination

The Pass Point

The test pass point is the minimum score required to pass the registration test. The pass point is also known as a cut score or passing score. Pass points for the REHS registration tests vary with each test, but usually fall between 60% and 70% of all test items answered correctly. Each version, or form, of a test will have its own pass point. Different versions are given each time the registration test is administered.

How Pass Points Are Set

A modified Angoff Method is used to determine the pass point for each version of each test. The modified Angoff Method uses expert judgments to determine the difficulty level of the test as a function of the average difficulty of each question on the exam. The easier the test, the higher the pass point. Likewise, the more difficult the test the lower the pass point.

Basic Outline of the Modified Angoff Method

1. A group of Subject Matter Experts (SMEs) independently rate each test question within a given test. The ratings are defined as the probability (as a percentage), or likelihood, that an acceptably (minimally) competent person with the required education and experience will answer the question correctly. An acceptably (minimally) competent person is defined as someone who adequately performs all job functions safely and requires no further formal training to do so.
2. The SMEs review each test question as a group. A consensus is reached for the difficulty and criticality rating of each test question. An item is considered critical if it is related to the profession; the knowledge or ability assessed by the item is needed by the candidates for successful performance of the job ("good to know" vs. "need to know"); the knowledge or ability assessed by the item is current, and applicable to the majority of people in the trade. During this time, the SMEs may develop new questions, discuss any changes to existing questions based on new regulations and review all questions that have been previously challenged by the test-takers. Any test question that is judged to be ambiguous, has more than one correct answer, or has no correct answers is either re-scored or deleted from the test item bank.
3. After the questions are refined, they are returned to the item test bank and are randomly selected for the next scheduled exam.

Why Use Modified Angoff?

Each version of a given registration test pulls questions from a test item bank. Each of these questions vary in difficulty. Because a different mix of questions is used in each test, the overall difficulty is not fixed. Thus, it is important to make sure that the varying difficulty level is reflected in the pass point of each test to ensure that test results are reliable. Test reliability is concerned with the reproducibility of results for each version of a given test. In other words, for a test to be reliable it must yield the same result (pass or fail) for the same individual under very similar circumstances. By taking into consideration the difficulty level of the test, the modified Angoff Method significantly increases the reliability of the test. Also, since each test is adjusted for difficulty level, each test version has the same standard for passing. Thus test-takers are treated equitably and fairly even if they take different versions of the test.

There are other methods for setting pass points. However, for the type of tests administered by the REHS Program the modified Angoff Method is the most appropriate.

The REHS Program Standards

The REHS Program Exam Standards affect employment decisions are therefore subject to certain standards set forth by federal law. To comply with these federal regulations, pass points must be set with consideration given to Standards of Educational and Psychological Testing (American Educational Research Association, American Psychological Association, and the National Council on Measurement in Education, 1985) The REHS Program utilizes methods of pass point determination that meet, or exceed, these standards.